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PHOTOGRAPHIC INTERPRETATION REPORT

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

# TASHKENT - DUSHANBE PROBABLE TELEVISION AND MICROWAVE LINE, USSR

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TASHKENT - DUSHANBE PROBABLE TELEVISION AND MICROWAVE LINE, USSR

### ABSTRACT

1. A probable television and microwave radio relay line between Tashkent and Dushanbe, USSR, has been identified on KEYHOLE photography. The line consists of four confirmed radio relay stations, two probable stations, and two possible stations. This report contains a map of the line, a description and photograph of each station, and measurements of the significant structures at the stations.

### INTRODUCTION

- 2. The probable TV and microwave line between Tashkent and Dushanbe extends over four mountain ranges. Radio relay stations have been erected high in these mountains to establish the probable TV and microwave links.
- 3. The Tokmak Radio Relay Station provides the link between Tashkent and Leninabad. Two possible and two probable radio relay stations link Leninabad and Dushanbe (Figure 1). The Avchi and Pereval Anzob Possible Radio Relay Stations are at high elevations 29 nautical miles (nm) apart. A probable radio relay station is on a mountain peak near Takob and another is on a ridge 10 nm north-northwest of Dushanbe.
- 4. The entire TV and microwave line was covered by photography of good interpretability, and the cities of Tashkent, Tokmak, Leninabad, and Dushanbe were covered by photography of good interpretability. Both R600 horn antennas and R60/120 dish antennas were identified at Tashkent Radio Relay and TV and FM Broadcast Center, Tokmak Radio Relay Station, and Dushanbe Radio Relay and TV and FM Broadcast Center. At Leninabad Radio Relay and TV Station, R600 horn antennas and the shadows of R60/120 dish antennas were observed.

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### BASIC DESCRIPTION

- $\,$  6. The following stations make up the Tashkent Dushanbe probable TV and microwave line.
- 8. Tokmak Radio Relay Station, 40-36-55N

  069-35-40E. This station, 3.5 nm north-northwest of Tokmak and 19.8 nm north of Leninabad, is at an elevation of 1,810 meters (5,900 feet). It consists of two R600 horns mounted on a tower, a control building with R60/120 microwave dish antennas mounted on both ends, and five support buildings (Figure 3). The azimuths of the horns and the dishes could not be precisely determined, but they appeared to be generally the same as those of the control building. The long axis of the building had azimuths of 160 and 340 degrees

  Relay Station lies on a line between the Tashkent and Leninabad TV stations. The Tashkent station lies at 340 degrees from the

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Tokmak station and the Leninabad station at approximately 163 degrees.

9. Leninabad Radio Relay and TV Station Khodzhent,

40-16-20N 069-44-00E. This station consists of a selfsupporting lattice tower with a turnstile TV antenna, a short lattice tower with two R600 horns mounted on top, a control or broadcast building, a possible studio building, and six support buildings (Figure 4). The R600 horn antennas have azimuths of 345 and 220 degrees (plus or minus 5 degrees plus 1 percent). The shadow cast by the TV tower on photography of August 1970 revealed that two R60/120 antenna dishes were mounted on the tower. The azimuths of the dishes could not be determined.

10. Avchi Possible Radio Relay Station,

069-00-14E. This station is at an elevation of approximately 4,220 meters (13,785 feet), approximately 7.7 nm south-southwest of Avchi and 55 nm southwest of Leninabad. It consists of a tower with unidentified elements (Figure 5, item 4), two buildings (one with a possible R600 horn adiacent) a wall or screen and two or three sheds. A service road on the north slope of the mountain leads to Avchi. A series of pylonlike towers, probably for power transmission, were being erected along the road.

11. Pereval Anzob Possible Radio Relay Station,
39-04-25N 068-52-11E. The station is on the crest of a ridge 0.5 nm southeast of Pereval Anzob and 31.5 nm north of Dushanbe at an elevation of approximately 3,410 meters (11,150 feet). The facility consists of a tower with a possible R600 microwave horn (Figure 6, item 6), two 29-meter (95-foot) towers (each with a crosspiece on top), two masts, three towers in a straight line covering 311 meters (1,020 feet) oriented east-southeast/west-northwest, and three buildings. The average height of the aligned towers is 20 meters (66 feet). Four buildings and two sheds are northeast of the main area.

12. Takob Probable Radio Relay Station,

38-50-50N 068-56-51E. The presence of this station was reported in a Soviet newspaper in May 1968. It is on a peak 1 nm northeast of Takob and 18.5 nm north-northwest of Dushanbe at an elevation of approximately 2,975 meters (9,500 feet). A tower with probable microwave elements is on the peak (Figure 7). Two buildings are on a service road on the slope below.

13. Dushanbe Probable Radio Relay Station North, 38-43-55N 068-44-50E. This probable radio relay station is on a high ridge 10 nm north-northwest of Dushanbe at an elevation of approximately 2,710 meters (8,900 feet). It consists of two buildings and a short tower (Figure 8).

14. Dushanbe Radio Relay and TV and FM Broadcast Center, BE

38-34-27N 068-48-00E. This broadcast center is within the city of Dushanbe. It consists of a broadcast and control building, a self-supporting lattice tower with TV and FM antennas and an R600 microwave antenna, a lattice mast with R60/120 microwave antennas, another short lattice tower with a possible small microwave dish, four support buildings, and a cooling pond (Figure 9). The R600 horn is mounted on the northeast side of the TV tower,

August 1971 photography revealed that the azimuth had been adjusted to the north, new orientation is toward Dushanbe Probable Radio Relay Station

North. The azimuths of the R60/120 reflecting dishes could not be determined.

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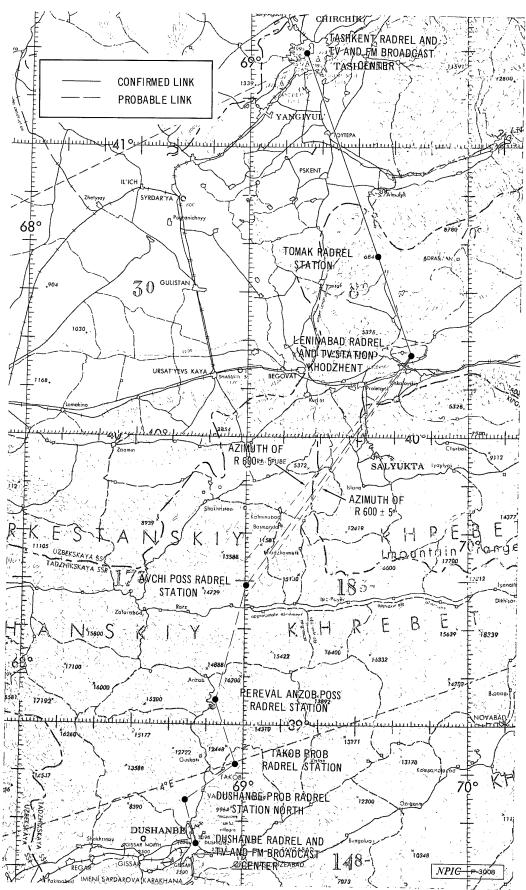
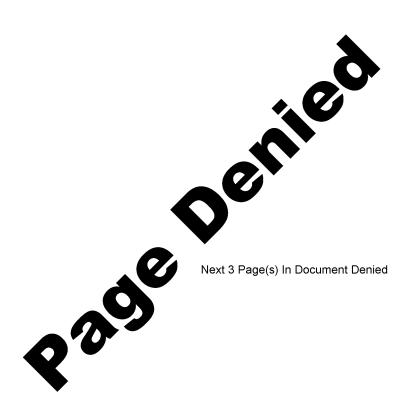


FIGURE 1. TASHKENT- DUSHANBE PROBABLE TELEVISION AND MICROWAVE LINE, USSR

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